

## CLAIMS

**What is claimed is:**

1. A saw comprising:
  - a base;
  - a frame assembly disposed on the base;
  - a first rail disposed on the frame assembly, the first rail having a longitudinal axis;
  - a table slidingly disposed on the first rail;
  - a saw assembly disposed on at least one of the base and the frame assembly, the saw assembly comprising a motor, and a cutting wheel driven by the motor; and
  - a switch electrically connected to the motor and disposed on the support assembly so that, when the motor assembly is pivoted about the horizontal axis, the switch remains stationary.
2. The saw of Claim 1, wherein the first rail has a first end, and the table is movable beyond the first end.
3. The saw of Claim 1, wherein the table is movable beyond the base.
4. The saw of Claim 1, wherein the base is formed as a tub.
5. The saw of Claim 1, wherein the frame is made of aluminum.
6. A saw comprising:
  - a base;
  - a frame assembly disposed on the base;
  - a first rail disposed on the frame assembly, the first rail having a longitudinal axis;
  - a table slidingly disposed on the first rail;

a saw assembly disposed on at least one of the base and the frame assembly, the saw assembly comprising a motor, and a cutting wheel driven by the motor; and

a pump removably disposed on the base;

wherein the frame has a pocket for holding the pump.

7. The saw of Claim 6, wherein the frame is made of aluminum.

8. A saw comprising:

a base;

a frame assembly disposed on the base;

a first rail disposed on the frame assembly, the first rail having a longitudinal axis;

a table slidingly disposed on the first rail;

a support assembly disposed on the frame;

a saw assembly supported by the support assembly, the saw assembly comprising a motor, and a cutting wheel driven by the motor;

one of the frame assembly and the support assembly having a first post, and the other of the frame assembly and the support assembly having a first hole for receiving the first post; and

one of the frame assembly and the support assembly having a second post, and the other of the frame assembly and the support assembly having a second hole for receiving the second post.

9. The saw of Claim 8, wherein the first hole is shaped as a slot.

10. The saw of Claim 8, wherein the first post has a substantially diamond-shaped cross-section.

11. The saw of Claim 8, wherein the first and second posts have different widths.

12. The saw of Claim 8, wherein the support assembly is a column.

13. The saw of Claim 8, wherein the support assembly is an arm assembly.

14. A saw comprising:

a base;

a frame assembly disposed on the base;

a first rail disposed on the frame assembly, the first rail having a longitudinal axis;

a table slidingly disposed on the first rail;

a support assembly disposed on the frame;

a saw assembly supported by the support assembly, the saw assembly comprising a motor, and a cutting wheel driven by the motor; and

an electrical outlet disposed on the support assembly.

15. The saw of Claim 14, wherein the support assembly is a column.

16. The saw of Claim 15, wherein the column is substantially hollow.

17. The saw of Claim 15, wherein the column is made of aluminum.

18. The saw of Claim 15, wherein the column has ribs.

19. A saw comprising:

a base;

a frame assembly disposed on the base;

a first rail disposed on the frame assembly, the first rail having a longitudinal axis;

a table slidingly disposed on the first rail;

a support assembly disposed on the frame; and

a saw assembly supported by the support assembly, the saw assembly comprising a motor, and a cutting wheel driven by the motor;

wherein the table has at least one insert that is cuttable by the cutting wheel.

20. The saw of Claim 19, wherein the at least one insert is rotatable.

21. The saw of Claim 19, wherein the at least one insert is made of plastic.

22. The saw of Claim 19, wherein the at least one insert is removable from the table.

23. A saw comprising:

a base;

a frame assembly disposed on the base;

a first rail disposed on the frame assembly, the first rail having a longitudinal axis;

a table slidably disposed on the first rail;

a support assembly disposed on the frame; and

a saw assembly supported by the support assembly, the saw assembly comprising a motor, and a cutting wheel driven by the motor;

wherein the table has an element movably attached to the table for indicating cutting path of the cutting wheel.

24. A saw comprising:

a base;

a frame assembly disposed on the base;

a first rail disposed on the frame assembly, the first rail having a longitudinal axis;

a table slidably disposed on the first rail;

a support assembly disposed on the frame; and

a saw assembly supported by the support assembly, the saw assembly comprising a motor, and a cutting wheel driven by the motor;

wherein the table has an insert with first and second substantially vertical walls, the first and second wall being substantially perpendicular to each other.

25. A saw comprising:

a base;

a frame assembly disposed on the base;

a first rail disposed on the frame assembly, the first rail having a longitudinal axis;

a table slidingly disposed on the first rail;

a support assembly disposed on the frame; and

a saw assembly supported by the support assembly, the saw assembly comprising a motor, and a cutting wheel driven by the motor;

wherein the table has an insert with first and second substantially vertical walls, the first and second wall being substantially perpendicular to each other.

26. A saw comprising:

a base;

a frame assembly disposed on the base;

a first rail disposed on the frame assembly, the first rail having a longitudinal axis;

a table slidingly disposed on the first rail;

a support assembly disposed on the frame; and

a saw assembly supported by the support assembly, the saw assembly comprising a motor, and a cutting wheel driven by the motor;

wherein the table has a groove, the groove having a first hole for allowing fluid on the table to move therethrough.

27. The saw of Claim 26, wherein the groove has a length substantially equal to a length of the table.

28. The saw of Claim 27, wherein the at least one hole is placed at about half the length of the groove.

29. The saw of Claim 26, wherein the table further comprises a draining pan underneath the table, the draining pan having a surface sloping downwardly.

30. The saw of Claim 26, wherein the table further comprises a brush disposed at an end of the groove.

31. A saw comprising:

- a base;

- a frame assembly disposed on the base;

- a first rail disposed on the frame assembly, the first rail having a longitudinal axis;

- a table slidingly disposed on the first rail;

- a pan attached to the table;

- a support assembly disposed on the frame; and

- a saw assembly supported by the support assembly, the saw assembly comprising a motor, and a cutting wheel driven by the motor.

32. The saw of Claim 31, wherein the pan is movably attached to the table so that the pan is movable along a direction substantially perpendicular to the longitudinal axis.

33. The saw of Claim 31, wherein the pan is movably attached to the table so that the pan is movable to a first position, one of the pan and the table having a detent received by the other of the pan and the table when the pan is in the first position.

34. A saw comprising:

a base;

a frame assembly disposed on the base;

a first rail disposed on the frame assembly, the first rail having a longitudinal axis;

a table slidingly disposed on the first rail;

a support assembly disposed on the frame; and

a saw assembly supported by the support assembly, the saw assembly comprising a motor, and a cutting wheel driven by the motor, the saw assembly being pivotable about a horizontal axis substantially perpendicular to the longitudinal axis to a desired pivoted position and being lockable in said desired pivoted position.

35. A saw comprising:

a base;

a frame assembly disposed on the base;

a first rail disposed on the frame assembly, the first rail having a longitudinal axis;

a table slidingly disposed on the first rail, the table having an upper surface for supporting a workpiece;

a support assembly disposed on the frame; and

a saw assembly supported by the support assembly, the saw assembly comprising a motor, and a cutting wheel driven by the motor, the saw assembly being pivotable about a bevel axis substantially parallel to the longitudinal axis between two pivoted positions and being lockable in said desired pivoted position, wherein said bevel axis is not coplanar with the upper surface.

36. The saw of Claim 35, wherein the bevel axis is substantially coplanar with a plane intersecting a vertical plane of the cutting wheel when the cutting wheel is in a

substantially vertical position, said plane being inclined relative to the vertical plane at an angle about half of the angular difference between the two pivoted positions.

37. The saw of Claim 35, wherein the vertical distance between the upper surface and the lowermost point of the cutting wheel is substantially the same in the two pivoted positions.

38. A saw comprising:

- a base;
- a frame assembly disposed on the base;
- a first rail disposed on the frame assembly, the first rail having a longitudinal axis;
- a table slidingly disposed on the first rail, the table having an upper surface for supporting a workpiece;
- a support assembly disposed on the frame; and
- a saw assembly supported by the support assembly, the saw assembly comprising a motor, a cutting wheel driven by the motor, and a guard covering an upper part of the cutting wheel, the guard being rotatable relative to the cutting wheel.

39. The saw of Claim 38, wherein the cutting plane is substantially coplanar with a plane, and the guard is rotatable about an axis substantially perpendicular to the plane.

40. A saw comprising:

- a base;
- a frame assembly disposed on the base;
- a first rail disposed on the frame assembly;
- a table slidingly disposed on the first rail, the table having an upper surface for supporting a workpiece;



a second rail disposed adjacent to the first rail, the second rail having upper and bottom surfaces;

a first roller assembly connected to the table, the first roller assembly having first and second rollers disposed on a first shaft connected to the table, the first roller being disposed on the first rail, and the second roller being disposed on the bottom surface of the second rail;

a support assembly disposed on the frame; and

a saw assembly supported by the support assembly, the saw assembly comprising a motor, and a cutting wheel driven by the motor.

41. The saw of Claim 40, wherein at least one of the first and second rails is adjustable.

42. The saw of Claim 40, wherein the first roller is adjustable along a longitudinal axis of the shaft.

43. The saw of Claim 40, further comprising a second roller assembly connected to the table, the second roller assembly having third and fourth rollers disposed on a second shaft connected to the table, the third roller being disposed on the first rail, and the fourth roller being disposed on the bottom surface of the second rail.

44. The saw of Claim 43, wherein the fourth roller is higher than the second roller.

45. The saw of Claim 43, wherein the second roller is disposed near center of the table.

46. The saw of Claim 40, wherein the table has a first side adjacent the first and second rails, and a second side distant from the first and second rails.

47. The saw of Claim 46, further comprising a third rail disposed on the frame assembly adjacent to the second side of the table.

48. The saw of Claim 47, the table having a bearing contacting the third rail.

49. A saw comprising:

a base;

a frame assembly disposed on the base;

a first rail disposed on the frame assembly;

a table slidingly disposed on the first rail, the table having an upper surface for supporting a workpiece;

a support assembly disposed on the frame; and

a saw assembly supported by the support assembly, the saw assembly comprising a motor, a cutting wheel driven by the motor, a guard covering an upper portion of the cutting wheel, and a fluid delivery assembly for directing a cooling fluid towards the cutting wheel, the fluid delivery system having a first pivotable nozzle through which the cooling fluid flows, the first nozzle having a hole through which cooling fluid exits the first nozzle.

50. A saw comprising:

a base;

a frame assembly disposed on the base;

a first rail disposed on the frame assembly;

a table slidingly disposed on the first rail, the table having an upper surface for supporting a workpiece;

a support assembly disposed on the frame; and

a saw assembly supported by the support assembly, the saw assembly comprising a motor, a cutting wheel driven by the motor, a guard covering an upper portion of the cutting wheel, and a fluid delivery assembly for directing a cooling fluid towards the

cutting wheel, the fluid delivery system having a first flexible nozzle through which the cooling fluid flows, the first nozzle having a hole through which cooling fluid exits the first nozzle.

51. The saw of Claim 50, wherein the first nozzle is made of a resilient material.

52. A saw comprising:

a base;

a frame assembly disposed on the base;

a first rail disposed on the frame assembly;

a table slidably disposed on the first rail, the table having an upper surface for supporting a workpiece;

a support assembly disposed on the frame; and

a saw assembly supported by the support assembly, the saw assembly comprising a motor, a cutting wheel driven by the motor, a guard covering an upper portion of the cutting wheel, and a fluid delivery assembly for directing a cooling fluid towards the cutting wheel, the fluid delivery system having a first nozzle with a body through which the cooling fluid flows, a hole through which cooling fluid exits the first nozzle, and a rib protruding from the body.

53. A saw comprising:

a base;

a frame assembly disposed on the base;

a first rail disposed on the frame assembly;

a table slidably disposed on the first rail, the table having an upper surface for supporting a workpiece;

a support assembly disposed on the frame; and

a saw assembly supported by the support assembly, the saw assembly comprising a motor, a cutting wheel driven by the motor, and a guard covering an upper portion of the cutting wheel, the guard having at least one rib projecting towards the cutting wheel.

54. The saw of Claim 53, wherein the at least one rib is inclined.

55. The saw of Claim 53, wherein the at least one rib is substantially perpendicular to the cutting wheel.

56. A saw comprising:

a base;

a frame assembly disposed on the base;

a first rail disposed on the frame assembly;

a table slidably disposed on the first rail, the table having an upper surface for supporting a workpiece;

a support assembly disposed on the frame; and

a saw assembly supported by the support assembly, the saw assembly comprising a motor, a motor housing covering the motor, a cutting wheel driven by the motor, and a guard covering an upper portion of the cutting wheel, wherein the motor housing has an inlet for allowing air into the motor housing, a labyrinth path within the motor housing for directing air through the motor housing, and a filter within the motor housing.

57. The saw of Claim 56, wherein the inlet lies in a plane substantially perpendicular to the blade.

58. A saw comprising:

a base;

a frame assembly disposed on the base;

a first rail disposed on the frame assembly;

a table slidingly disposed on the first rail, the table having an upper surface for supporting a workpiece;

a support assembly disposed on the frame; and

a saw assembly supported by the support assembly, the saw assembly comprising a motor, a motor housing covering the motor, a cutting wheel driven by the motor, a guard covering an upper portion of the cutting wheel, and a flexible flap having an upper portion and a lower portion, wherein the upper portion has at least one rib.

59. The saw of Claim 58, wherein the at least one rib is substantially vertical.

60. A saw comprising:

a base;

a frame assembly disposed on the base;

a first rail disposed on the frame assembly;

a table slidingly disposed on the first rail, the table having an upper surface for supporting a workpiece;

a fence assembly attachable to the table, the fence assembly having a body and a fence for contacting the workpiece, the fence being pivotably attached to the body and being pivotable about a substantially horizontal axis;

a support assembly disposed on the frame; and

a saw assembly supported by the support assembly, the saw assembly comprising a motor, a motor housing covering the motor, a cutting wheel driven by the motor, a guard covering an upper portion of the cutting wheel.

61. The saw of Claim 60, wherein the fence is pivotable between two positions.
62. The saw of Claim 61, wherein the fence is substantially perpendicular to the table in the two positions.
63. The saw of Claim 60, wherein the fence is removable from the body.
64. The saw of Claim 60, wherein the fence assembly further comprises a stop movably disposed on the fence.
65. The saw of Claim 60, further comprising means for attaching the fence assembly to the table.